



BIOPHOTONS

A HISTORY AND EXPLANATION

Since being first discovered in 1923, by Professor Alexander G. Gurvich, a Russian medical scientist (who called them “mitogenetic rays”), biophotons have been an interesting source of conjecture about exactly how the body and its cells operate.

Biophotons were widely researched in Europe and the USA in the 1930’s, and have since been “rediscovered”. Since the 1970’s, their essence has been backed by ample theoretical and experimental evidence, provided by European scientists. In 1974, German biophysicist, Fritz-Albert Popp conclusively proved their existence, their origin from the DNA and later their extreme coherence (laser-like nature).

Popp developed biophoton theory to explain their possible biological role and the numerous ways in which they may control biochemical processes, growth, differentiation etc. Popp’s biophoton theory leads to many startling insights into life processes and, may well; provide one of the major elements of a future theory of life and holistic medical practice based on such an approach.

The importance of the discovery, and proof of bio fields, has been confirmed by eminent scientists such as Herbert Froehlich and Nobel laureate, Ilya Prigogine. Since 1992, a network of research laboratories in more than 10 countries (the International Institute of Biophysics, based in Germany) has coordinated research in this field, which promises rapid development in the next decade.

Biophotons, or ultra-weak photon emissions of biological systems, are weak electromagnetic waves in the optical range of the spectrum – in other words: light. All living cells of plants, animals and human beings, emit biophotons which cannot be seen by the naked eye, but can be measured by special equipment developed by German researchers.

This light emission is an expression of the functional state of the living organism and its measurement, therefore, can be used to assess this state. Cancer cells and healthy cells of the same type, for instance, are differentiated by typical differences in biophoton emissions. After an initial decade and a half of basic research on this discovery, biophysicists of various European and Asian countries are now exploring the many interesting applications which range across such diverse fields as cancer research, non-invasive early medical diagnosis, food and water quality testing, chemical and electromagnetic contamination testing, cell communication, and various applications in biotechnology.



According to the biophoton theory developed on the base of these discoveries, the biophoton light is stored in the cells of the organism – more precisely, in the DNA molecules of their nuclei – and a dynamic web of light constantly released and absorbed by the DNA may connect cell organelles, cells, tissues and organs within the body and serve as the organism's main communication network and as the principal regulating instance for all life processes.

The processes of morphogenesis, growth, differentiation and regeneration are also explained by the structuring and regulating activity of the coherent biophoton field. The holographic, biophoton field of the brain and nervous system, and maybe even that of the whole organism, may also be basis of memory and other phenomena of consciousness, as postulated by neurophysiologist Karl Pribram and others. The consciousness-like coherence properties of the biophoton field are closely related to its base in the properties of the physical vacuum and indicate its possible role as an interface to the non-physical realms of mind, psyche and consciousness.

The discovery of biophoton emission also lends scientific support to some unconventional methods of healing, based on concepts of homeostasis (self-regulation of the organism), such as various somatic therapies, homeopathy and acupuncture. The “chi” energy flowing in the body's energy channels (meridians), which according to traditional Chinese medicine, regulates our bodily functions, may be related to node lines of the organism's biophoton field. The “prana”, of Indian Yoga physiology, may be a similar regulating energy force that has a basis in weak, coherent electromagnetic bio fields.